

List of Current Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 - 10 (Cancelled).

11. (New) A gas sensor module, comprising:
a primary sensor for the registering of a gas concentration;
a digital data memory for storing sensor data or process data; and
a contactless interface for connecting to a superordinated unit for supplying energy to the gas sensor module and for data exchange between the gas sensor module and the superordinated unit.
12. (New) The gas sensor module as claimed in claim 11, wherein:
said contactless interface is embodied as a contactless plug or as a socket for a complementary, contactless plug.
13. (New) The gas sensor module as claimed in claim 11, wherein:
said contactless interface comprises an inductive interface.
14. (New) The gas sensor module as claimed in claim 11, further comprising:
an analog-digital converter for generating a digital signal, which is a function of an analog signal of said primary sensor dependent on the gas concentration.
15. (New) The gas sensor module as claimed in claim 14, further comprising:
a microprocessor which, on the one hand, controls the data exchange between the interface of said gas sensor module and the superordinated unit, and, on the other hand, controls reading from said digital data memory and writing to said digital data memory.

16. (New) The gas sensor as claimed in claim 15, wherein:
said analog-digital converter is integrated into said microprocessor.

17. (New) The gas sensor module as claimed in claim 11, further comprising:
a temperature sensor.

18. (New) A transmitter module for operating at least one gas sensor module
as claimed in claim 11, comprising:

a contactless interface for data exchange with the gas sensor module and for
energy supply of the gas sensor module; and

a communications circuit for output of at least one of the signals dependent on
the measured data.

19. (New) The transmitter module as claimed in claim 18, wherein: said
communications circuit is a circuit for generating a 4...20 mA signal, a HART-modem,
or an interface for connecting to a data bus, for example a Fieldbus Foundation data
bus or a PROFIBUS data bus.

20. (New) A modular gas sensor arrangement, comprising: a transmitter
module having a contactless interface for data exchange, with a gas sensor module and
for energy supply of the gas sensor module, a communications circuit for output of at
least one of the signals dependent on the measured data and at least one gas sensor
module suitable therefor, which includes a primary sensor, a digital data memory and
a contactless interface.